

GenCore version 5.1.4 p5 4578
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OM nucleic - nucleic search, using sw model

Run on: March 29, 2003, 22:21:32 ; Search time 1180 Seconds
(without alignments)
320.624 Million cell updates/sec

Title: US-09-897-776A-18
Sequence: 13
Perfect score: 13
Sequence: 1 atgcagtcagcagc 13

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0
2054640 segs, 14551402878 residues

Total number of hits satisfying chosen parameters: 804208

Minimum DB seq length: 13
Maximum DB seq length: 50

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

- 1: GenBank1:
- 2: gb_da:
- 3: gb_hg:
- 4: gb_in:
- 5: gb_ov:
- 6: gb_ov:
- 7: gb_ov:
- 8: gb_ov:
- 9: gb_ov:
- 10: gb_ov:
- 11: gb_ov:
- 12: gb_ov:
- 13: gb_ov:
- 14: gb_ov:
- 15: gb_ov:
- 16: gb_ov:
- 17: gb_ov:
- 18: gb_ov:
- 19: gb_ov:
- 20: gb_ov:
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- 22: gb_ov:
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- 25: gb_ov:
- 26: gb_ov:
- 27: gb_ov:
- 28: gb_ov:
- 29: gb_ov:
- 30: gb_ov:
- 31: gb_ov:
- 32: gb_ov:
- 33: gb_ov:
- 34: gb_ov:
- 35: gb_ov:
- 36: gb_ov:
- 37: gb_ov:
- 38: gb_ov:
- 39: gb_ov:
- 40: gb_ov:
- 41: gb_ov:

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Length	DB ID	Description
1	11.4	87.7	14	AR131417
2	11.4	87.7	14	AR131417
3	11.4	87.7	14	AR148643
4	11.4	87.7	14	AR148643
5	11.4	87.7	14	AR154223
6	11.4	87.7	14	AR154223
7	11.4	87.7	14	AR154223
8	11.4	87.7	14	AR154223
9	11.4	87.7	14	AR154223
10	11.4	87.7	14	AR154223
11	11.4	87.7	14	AR154223
12	11.4	87.7	14	AR154223
13	11.4	87.7	14	AR154223
14	11.4	87.7	14	AR154223
15	11.4	87.7	14	AR154223
16	11.4	87.7	14	AR154223
17	11.4	87.7	14	AR154223
18	11.4	87.7	14	AR154223
19	11.4	87.7	14	AR154223
20	11.4	87.7	14	AR154223
21	11.4	87.7	14	AR154223
22	11.4	87.7	14	AR154223
23	11.4	87.7	14	AR154223
24	11.4	87.7	14	AR154223
25	11.4	87.7	14	AR154223
26	11.4	87.7	14	AR154223
27	11.4	87.7	14	AR154223
28	11.4	87.7	14	AR154223
29	11.4	87.7	14	AR154223
30	11.4	87.7	14	AR154223
31	11.4	87.7	14	AR154223
32	11.4	87.7	14	AR154223
33	11.4	87.7	14	AR154223
34	11.4	87.7	14	AR154223
35	11.4	87.7	14	AR154223
36	11.4	87.7	14	AR154223
37	11.4	87.7	14	AR154223
38	11.4	87.7	14	AR154223
39	11.4	87.7	14	AR154223
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41	11.4	87.7	14	AR154223
42	11.4	87.7	14	AR154223
43	11.4	87.7	14	AR154223
44	11.4	87.7	14	AR154223
45	11.4	87.7	14	AR154223

ALIGNMENTS

RESULT 1
LOCUS AR131417 14 bp DNA linear PAT 16-MAY-2001
DEFINITION Sequence 1 from patent US 6194144.
ACCESSION AR131417
VERSION AR131417.1 GI:14120320
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 14)
AUTHORS Koster, H.
TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 6194144-A 1-27-FEB-2001;
FEATURES Location/Qualifiers

source 1.14
/organism="unknown"
BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCATG 13
|||
Db 2 ATCCATGGCATG 14

RESULT 2
LOCUS AR131417/c 14 bp DNA linear PAT 16-MAY-2001
DEFINITION Sequence 1 from patent US 6194144.
ACCESSION AR131417
VERSION AR131417.1 GI:14120320
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.

TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 6194144-A 1 27-FEB-2001;
FEATURES Location/Qualifiers
source 1.14

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCATG 13
|||
Db 13 ATCCATGGCATG 1

RESULT 3
LOCUS AR148643 14 bp DNA linear PAT 08-AUG-2001
DEFINITION Sequence 1 from patent US 6225450.
ACCESSION AR148643
VERSION AR148643.1 GI:15112733
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.

TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 6225450-A 1 01-MAY-2001;
FEATURES Location/Qualifiers
source 1.14

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCATG 13
|||
Db 2 ATCCATGGCATG 14

RESULT 4

AR148643/c 14 bp DNA linear PAT 08-AUG-2001
LOCUS AR148643
DEFINITION Sequence 1 from patent US 6225450.
ACCESSION AR148643
VERSION AR148643.1 GI:15112733
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.

TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 6225450-A 1 01-MAY-2001;
FEATURES Location/Qualifiers
source 1.14

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCATG 13
|||
Db 13 ATCCATGGCATG 1

RESULT 5
LOCUS AR154223 14 bp DNA linear PAT 08-AUG-2001
DEFINITION Sequence 1 from patent US 6238871.
ACCESSION AR154223
VERSION AR154223.1 GI:15122276
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.

TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 6238871-A 1 29-MAY-2001;
FEATURES Location/Qualifiers
source 1.14

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCATG 13
|||
Db 2 ATCCATGGCATG 14

RESULT 6
LOCUS AR154223 14 bp DNA linear PAT 08-AUG-2001
DEFINITION Sequence 1 from patent US 6238871.
ACCESSION AR154223
VERSION AR154223.1 GI:15122276
KEYWORDS
SOURCE Unknown.
ORGANISM Unclassified.

REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.

TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 6238871-A 1 29-MAY-2001;
FEATURES Location/Qualifiers
source 1.14

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN /organism="unknown"

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCATTGGCATTG 13
Db 13 ATGGCATTGGCATTG 1

RESULT 7
LOCUS AX259319 14 bp DNA linear PAT 26-OCT-2001
DEFINITION Sequence 1 from Patent WO0173085.
ACCESSION AX259319
VERSION AX259319.1 GI:16508556
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct
REFERENCE 1
AUTHORS Duerling, K.
TITLE Expression vectors for concentrating a recombinantly produced protein in different cell compartments
JOURNAL Patent: WO 0173085-A 1 04-OCT-2001;
MPB Cologne GmbH Molecular Plant & Protein Biotechnology (DE)
FEATURES
source 1. .14
/organism="synthetic construct"
/db_xref="taxon:32630"
/note="Oligonukleotid"

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCATTGGCATTG 13
Db 2 ATGGCATTGGCATTG 14

RESULT 8
LOCUS AX259319/c 14 bp DNA linear PAT 26-OCT-2001
DEFINITION Sequence 1 from Patent WO0173085.
ACCESSION AX259319
VERSION AX259319.1 GI:16508556
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct
REFERENCE 1
AUTHORS Duerling, K.
TITLE Expression vectors for concentrating a recombinantly produced protein in different cell compartments
JOURNAL Patent: WO 0173085-A 1 04-OCT-2001;
MPB Cologne GmbH Molecular Plant & Protein Biotechnology (DE)
FEATURES
source 1. .14
/organism="synthetic construct"
/db_xref="taxon:32630"
/note="Oligonukleotid"

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCATTGGCATTG 13
Db 2 ATGGCATTGGCATTG 14

RESULT 10
LOCUS AX339614/c 14 bp DNA linear PAT 10-JAN-2002
DEFINITION Sequence 6 from Patent WO0196551.
ACCESSION AX339614
VERSION AX339614.1 GI:18135627
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct
REFERENCE 1
AUTHORS Short, J.M.
TITLE Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating
JOURNAL Patent: WO 0196551-A 6 20-DEC-2001;
DIVERSA CORPORATION (US)
FEATURES
source 1. .14
/organism="synthetic construct"
/db_xref="taxon:32630"
/note="Tetradecanucleotide d"

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCATTGGCATTG 13
Db 13 ATGGCATTGGCATTG 1

RESULT 11

Qy 1 ATGGCATTGGCATTG 13
Db 13 ATGGCATTGGCATTG 1

RESULT 9
LOCUS AX339614 14 bp DNA linear PAT 10-JAN-2002
DEFINITION Sequence 6 from Patent WO0196551.
ACCESSION AX339614
VERSION AX339614.1 GI:18135627
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct
REFERENCE 1
AUTHORS Short, J.M.
TITLE Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating
JOURNAL Patent: WO 0196551-A 6 20-DEC-2001;
DIVERSA CORPORATION (US)
FEATURES
source 1. .14
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/db_xref="taxon:32630"
/note="Tetradecanucleotide d"

BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN

Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCATTGGCATTG 13
Db 13 ATGGCATTGGCATTG 1

RESULT 11

I40291
LOCUS I40291 14 bp DNA linear PAT 13-MAY-1997
DEFINITION Sequence 1 from patent US 5620849.
ACCESSION I40291
VERSION I40291.1 GI:2082583
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 14)
AUTHORS Botchan,M.R., Yang,L., Li,R., Mohr,I.J. and Clark,R.
TITLE Methods and compositions for identifying inhibitors of papilloma virus replication
JOURNAL Patent: US 5620849-A 1 15-APR-1997;
FEATURES
source 1.14
BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN
Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATGGCATG 13
Db 2 ATGCCATGGCATG 14
RESULT 12
I40291/c 14 bp DNA linear PAT 13-MAY-1997
LOCUS I40291/c
DEFINITION Sequence 1 from patent US 5620849.
ACCESSION I40291
VERSION I40291.1 GI:2082583
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 14)
AUTHORS Botchan,M.R., Yang,L., Li,R., Mohr,I.J. and Clark,R.
TITLE Methods and compositions for identifying inhibitors of papilloma virus replication
JOURNAL Patent: US 5620849-A 1 15-APR-1997;
FEATURES
source 1.14
BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN
Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATGGCATG 13
Db 13 ATGCCATGGCATG 1
RESULT 13
I76128 14 bp DNA linear PAT 03-APR-1998
LOCUS I76128
DEFINITION Sequence 1 from patent US 5691141.
ACCESSION I76128
VERSION I76128.1 GI:3012282
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.
TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 5691141-A 1 25-NOV-1997;
FEATURES
source 1.14
BASE COUNT 5 a 7 c 4 g 4 t
ORIGIN
Query Match 87.7%; Score 11.4; DB 6; Length 20;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATGGCATG 13
Db 14 ATGGCATGGCATG 2

FEATURES
source Location/Qualifiers
BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN
Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATGGCATG 13
Db 2 ATGCCATGGCATG 14
RESULT 14
I76128 14 bp DNA linear PAT 03-APR-1998
LOCUS I76128
DEFINITION Sequence 1 from patent US 5691141.
ACCESSION I76128
VERSION I76128.1 GI:3012282
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 14)
AUTHORS Koster,H.
TITLE DNA sequencing by mass spectrometry
JOURNAL Patent: US 5691141-A 1 25-NOV-1997;
FEATURES
source 1.14
BASE COUNT 3 a 4 c 4 g 3 t
ORIGIN
Query Match 87.7%; Score 11.4; DB 6; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATGGCATG 13
Db 13 ATGCCATGGCATG 1
RESULT 15
AR029339 20 bp DNA linear PAT 29-SEP-1999
LOCUS AR029339/c
DEFINITION Sequence 61 from patent US 5859230.
ACCESSION AR029339
VERSION AR029339.1 GI:5941312
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 20)
AUTHORS Kim,J.P., Reyes,G.R. and Young,L.Marie.
TITLE Non-A/non-B/non-C/non-D/non-E hepatitis agents and molecular cloning thereof
JOURNAL Patent: US 5859230-A 61 12-JAN-1999;
FEATURES
source 1.20
BASE COUNT 5 a 7 c 4 g 4 t
ORIGIN
Query Match 87.7%; Score 11.4; DB 6; Length 20;
Best Local Similarity 92.3%; Pred. No. 2.6e+04;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATGGCATG 13
Db 14 ATGGCATGGCATG 2

Mon Mar 31 10:09:14 2003

us-09-897-776a-18.rge

Page 5

Search completed: March 30, 2003, 00:16:56
Job time : 1182 secs



1
2
3
4

XX Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGCGCATG 13
|||
2 ATGCATGCGCATG 14

RESULT 4
AAH49474/c
ID AAH49474 standard; DNA; 14 BP.

AAH49474;

11-DEC-2001 (first entry)

scfv(ox) antibody KDEL-ER targeting sequence linker DNA fragment.

Antibody scfv(ox); fusion protein; localization signal; plant;
potato; ss.

Solanum tuberosum.
Synthetic.

DE10014412-A1.

04-OCT-2001.

24-MAR-2000; 2000DE-1014412.

24-MAR-2000; 2000DE-1014412.

(MPBC-) MPB COLOGNE GMBH MOLECULAR PLANT & PROTE.

Duering K;

WPI; 2001-607899/70.

Expression vector comprising several copies of the same gene, useful
for expressing proteins in plants, in several different cell
compartments

Example 1; Column 9; 10pp; German.

This invention describes a novel expression vector (A) containing at
least two copies of a gene (I) encoding a protein (II), each linked to a
promoter, or a composition (B) of at least two (A), each with at least
one copy of (I) linked to a promoter. The individual (I) encode (II) as
a fusion protein with a localization signal (LS), with all (II)-encoding
parts being the same but the LS different. After introduction of (A) or
(B) into a host, (I) is expressed in different compartments. (A) and (B),
or combinations of them, are used for production of (II) in plants
(molecular farming). Expressing (I) in several different compartments of
plant cells provides increased production of (II). This sequence
represents a linker fragment used in the construction of the scfv(ox)
antibody described in the method of the invention.

Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGCGCATG 13
|||
13 ATGCATGCGCATG 1

RESULT 5

AAH49492
ID AAH49492 standard; DNA; 14 BP.

Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGCGCATG 13
|||
2 ATGCATGCGCATG 14

RESULT 6
AAH49492/c
ID AAH49492 standard; DNA; 14 BP.

AAH49492;

11-DEC-2001 (first entry)

Endoplasmic reticulum targeting scfv(ox) antibody linker #1.

Antibody scfv(ox); fusion protein; localization signal; plant;
endoplasmic reticulum; ss.

Unidentified.
DE10014412-A1.

04-OCT-2001.

24-MAR-2000; 2000DE-1014412.

24-MAR-2000; 2000DE-1014412.

(MPBC-) MPB COLOGNE GMBH MOLECULAR PLANT & PROTE.

Duering K;

WPI; 2001-607899/70.

Expression vector comprising several copies of the same gene, useful
for expressing proteins in plants, in several different cell
compartments

Example 3; Column 13; 10pp; German.

This invention describes a novel expression vector (A) containing at
least two copies of a gene (I) encoding a protein (II), each linked to a
promoter, or a composition (B) of at least two (A), each with at least
one copy of (I) linked to a promoter. The individual (I) encode (II) as
a fusion protein with a localization signal (LS), with all (II)-encoding
parts being the same but the LS different. After introduction of (A) or
(B) into a host, (I) is expressed in different compartments. (A) and (B),
or combinations of them, are used for production of (II) in plants
(molecular farming). Expressing (I) in several different compartments of
plant cells provides increased production of (II). This sequence
represents an endoplasmic reticulum (ER) scfv(ox) antibody linker
fragment described in the method of the invention.

Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGCGCATG 13
|||
2 ATGCATGCGCATG 14

RESULT 6
AAH49492/c
ID AAH49492 standard; DNA; 14 BP.

AAH49492;

11-DEC-2001 (first entry)

Endoplasmic reticulum targeting scfv(ox) antibody linker #1.

Antibody scfv(ox); fusion protein; localization signal; plant;
endoplasmic reticulum; ss.

Unidentified.

PN DE10014412-A1.
XX
PD 04-OCT-2001.
XX
PF 24-MAR-2000; 2000DE-1014412.
XX
PR 24-MAR-2000; 2000DE-1014412.
XX
PA (MPBC-) MPB COLOGNE GMBH MOLECULAR PLANT & PROTE.
XX
PI Duerling K;
XX
DR MPI; 2001-607899/70.
XX
PT Expression vector comprising several copies of the same gene, useful
PT for expressing proteins in plants, in several different cell
PT compartments -
XX
PS Example 3; Column 13; 10pp; German.
XX
CC This invention describes a novel expression vector (A) containing at
CC least two copies of a gene (I) encoding a protein (II), each linked to a
CC promoter, or a composition (B) of at least two (A), each with at least
CC one copy of (I) linked to a promoter. The individual (I) encode (II) as
CC a fusion protein with a localization signal (LS), with all (II)-encoding
CC parts being the same but the LS different. After introduction of (A) or
CC (B) into a host, (I) is expressed in different compartments. (A) and (B),
CC or combinations of them, are used for production of (II) in plants
CC (molecular farming). Expressing (I) in several different compartments of
CC plant cells provides increased production of (II). This sequence
CC represents an endoplasmic reticulum (ER) scFv(ox) antibody linker
CC fragment described in the method of the invention.
XX
SQ Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;
XX
Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
XX
QY 1 ATGCGATGCGCATG 13
13 ATGCCATGCGCATG 1
XX
RESULT 7
AAH44110
ID AAH44110 standard; DNA; 14 BP.
XX
AC AAH44110;
XX
AC AAH44110;
XX
DT 13-SEP-2001 (first entry)
XX
DE Tetradecanucleotide SEQ ID NO:1.
XX
KW DNA sequencing; Sanger sequencing; base-specific chain termination;
KW mass spectrometry; hybridisation; probe; tag; molecular weight; ss.
XX
OS Synthetic.
XX
PN US6225450-B1.
XX
PD 01-MAY-2001.
XX
PF 07-JUN-1995; 95US-0481033.
XX
PR 06-JAN-1994; 94US-0178216.
PR 07-JAN-1993; 93US-0001323.
XX
PA (SEQU-) SEQUENOM INC.
XX
PI Koester H;
XX
DR MPI; 2001-482100/52.
XX

XX
PT Mass-modified nucleic acid molecules for DNA and RNA Sanger sequencing,
PT have positively mass-modified nucleotides containing halogens or
PT functional groups attached to heterocyclic base or sugar moiety of
PT nucleotide -
XX
PS Disclosure; Column 6; 61pp; English.
XX
CC The present invention describes an intact ionised and volatilised
CC mass-modified (MM) nucleic acid molecule (I), comprising at least two MM
CC nucleotides chosen from MM 2'-deoxynucleotide, MM 2' 3'-
CC diideoxynucleotide, MM nucleotide and a MM 3'-deoxynucleotide, which are
CC different from each other and positively charged. (I) comprises a MM
CC universal primer or a MM initiator oligonucleotide. Also described are:
CC (1) a set of mass-differentiated tag probes, where each tag probe in
CC the set comprises a sequence of nucleotides which is complementary by
CC Watson-Crick base pairing to a tag sequence present within a set of
CC base-specifically terminated fragments; and (2) an ionised positively
CC charged intact duplex, comprising a MM tag probe having a MM nucleotide
CC bound to a tag sequence present with a base-specifically terminated
CC nucleic acid fragment. The MM nucleotides are useful for DNA and RNA
CC Sanger sequencing. Introducing mass modifications in the oligonucleotide
CC primer, chain-terminating nucleoside triphosphates and/or in the
CC chain-elongating nucleoside triphosphates allows multiplexing by
CC hybridisation tag specific probes with mass differentiated molecular
CC weights. The MM oligonucleotide provides a new method to sequence DNA
CC over the existing DNA sequencing techniques including high speed, high
CC throughput, no requirement of electrophoresis and no costly reagents
CC involving various substitutions with stable isotopes. The present
CC sequence represents a tetradecanucleotide which is given in the
CC exemplification of the present invention.
XX
SQ Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;
XX
Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
XX
QY 1 ATGCGATGCGCATG 13
2 ATGCCATGCGCATG 14
XX
RESULT 8
AAH44110/c
ID AAH44110 standard; DNA; 14 BP.
XX
AC AAH44110;
XX
AC AAH44110;
XX
DT 13-SEP-2001 (first entry)
XX
DE Tetradecanucleotide SEQ ID NO:1.
XX
KW DNA sequencing; Sanger sequencing; base-specific chain termination;
KW mass spectrometry; hybridisation; probe; tag; molecular weight; ss.
XX
OS Synthetic.
XX
PN US6225450-B1.
XX
PD 01-MAY-2001.
XX
PF 07-JUN-1995; 95US-0481033.
XX
PR 06-JAN-1994; 94US-0178216.
PR 07-JAN-1993; 93US-0001323.
XX
PA (SEQU-) SEQUENOM INC.
XX
PI Koester H;
XX
DR MPI; 2001-482100/52.
XX

PT Mass-modified nucleic acid molecules for DNA and RNA Sanger sequencing.
PT Mass-modified mass-modified nucleotides containing halogens or
PT functional groups attached to heterocyclic base or sugar moiety of
PT nucleotide -
PS Disclosure; Column 6; 61pp; English.
XX
XX The present invention describes an intact ionised and volatilised
CC mass-modified (MM) nucleic acid molecule (1), comprising at least two MM
CC nucleotides chosen from MM 2'-deoxynucleotide, MM 2', 3'-
CC diideoxynucleotide, MM nucleotide and a MM 3'-deoxynucleotide, which are
CC different from each other, and positively charged. (1) comprises a MM
CC universal primer or a MM initiator oligonucleotide. Also described are:
CC (1) a set of mass-differentiated tag probes, where each tag probe in
CC the set comprises a sequence of nucleotides which is complementary by
CC Watson-Crick base pairing to a tag sequence present within a set of
CC base-specifically terminated fragments; and (2) an ionised positively
CC charged intact duplex, comprising a MM tag probe having a MM nucleotide
CC bound to a tag sequence present with a base-specifically terminated
CC nucleic acid fragment. The MM nucleotides are useful for DNA and RNA
CC Sanger sequencing. Introducing mass modifications in the oligonucleotide
CC primer, chain-terminating nucleoside triphosphates and/or in the
CC chain-elongating nucleoside triphosphates allows multiplexing by
CC hybridisation tag specific probes with mass differentiated molecular
CC weights. The MM oligonucleotide provides a new method to sequence DNA
CC over the existing DNA sequencing techniques including high speed, high
CC throughput, no requirement of electrophoresis and no costly reagents
CC involving various substitutions with stable isotopes. The present
CC sequence represents a tetradecanucleotide which is given in the
CC exemplification of the present invention.
SQ Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;
Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
QY 1 ATGGCATTGGCATG 13
||| ||||| |||||
DB 13 ATGGCATTGGCATG 1
RESULT 9
AAH20936
AAH20936 strand; DNA; 14 BP.
AAH20936;
XX 24-AUG-2001 (first entry)
DE Anaerobically-induced GapC4 promoter associated primer #1.
XX
XX Primer; anaerobic; promoter; GapC4; transgenic; inducer; ss.
KM Unidentified.
OS
XX WO200138508-A2.
XX
XX 31-MAY-2001.
XX
XX 05-SEP-2000; 2000WO-DE03119.
XX
XX 23-NOV-1999; 99DE-1056272.
XX
XX (MPBC-) MPB COLOGNE GMBH MOLECULAR PLANT & PROTE.
XX
XX Duerling K, Buelow L;
XX
XX WPI; 2001-367680/38.
XX
XX
XX Producing proteins from transgenic organisms after harvesting, useful
PT e.g. for preparing single-chain antibodies, by chemical induction of
PT protein-expressing gene -

XX Example 1; Page 15; 22pp; German.

XX This invention describes a novel method for the production of a selected

PS protein (I) by a transgenic organism (A) in which expression of the

CC (I)-encoding gene (II) occurs only after harvesting of (A). (A) contains

CC (II) that is expressed only in the presence of a chemical inducer (III)

CC and harvested (A) are contacted with (III) by delivering this to a phase

CC that surrounds (A). The method is used to produce (I), or other

CC (bio)chemicals, on a large scale for (bio)medical (therapeutic or

CC diagnostic) purposes or industrial applications. The examples illustrate

CC production of single-chain Fv antibody fragments. Expression of (I) only

CC after harvest eliminates the need to comminute tissue and (III) can be

CC delivered simply and uniformly to the cells of (A). This sequence

CC represents a primer derived from an anaerobically induced GapC4 promoter

CC which is used to illustrate the method of the invention.

XX Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

SQ

Query Match 87.7%; Score 11.4; DB 22; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps

QY 1 ATGGCATGCGCATG 13
||| ||||||||
Db 2 ATGCATGCGCATG 14

RESULT 10
AAH20936/c
ID AAH20936 standard; DNA; 14 BP.
XX
XX AAH20936;
DT 24-AUG-2001 (first entry)
DE Anaerobically-induced GapC4 promoter associated primer #1.
KW Primer; anaerobic; promoter; GapC4; transgenic; inducer; ss.
OS Unidentified.
XX
XX WO200138508-A2.
PN 31-MAY-2001.
PD
XX
XX 05-SEP-2000; 2000WO-DE03119.
PF
XX 23-NOV-1999; 99DE-1056272.
PR
XX
PA (MPBC-) MPB COLOGNE GMBH MOLECULAR PLANT & PROTE.
XX
PI Duering K, Buelow L;
DR MPI; 2001-367680/38.
XX
XX
PT Producing proteins from transgenic organisms after harvesting, useful
PT e.g. for preparing single-chain antibodies, by chemical induction of
XX protein-expressing gene -
XX
XX Example 1; Page 15; 22pp; German.

XX This invention describes a novel method for the production of a selected

CC protein (I) by a transgenic organism (A) in which expression of the

CC (I)-encoding gene (II) occurs only after harvesting of (A). (A) contains

CC (II) that is expressed only in the presence of a chemical inducer (III)

CC and harvested (A) are contacted with (III) by delivering this to a phase

CC that surrounds (A). The method is used to produce (I), or other

CC (bio)chemicals, on a large scale for (bio)medical (therapeutic or

CC diagnostic) purposes or industrial applications. The examples illustrate

CC production of single-chain Fv antibody fragments. Expression of (I) only

CC after harvest eliminates the need to comminute tissue and (III) can be

CC delivered simply and uniformly to the cells of (A). This sequence

CC represents a primer derived from an anaerobically induced GapC4 promoter
CC which is used to illustrate the method of the invention.

XX Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

CC Query Match 87.7%; Score 11.4; DB 22; Length 14;

CC Best Local Similarity 92.3%; Pred. No. 2.6e+03;

XX Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGCGCATG 13

DB 13 ATGCATGCGCATG 1

RESULT 11

AA169334

ID AA169334 standard; DNA; 14 BP.

AC AA169334;

DT 18-FEB-2002 (first entry)

XX Plasmid pRT100/scFv(ox)E ER localising scFv(ox) Ab linker primer #1.

XX Endoplasmic reticulum; scFv; antibody; protein farming; transgenic plant;
XX antimicrobial; antibiotic; RNase; diptheria toxin; cytosine deaminase;
XX polyhydroxyalkanoate production; primer; ss.

OS Synthetic.

XX Key Location/Qualifiers

FT modified_base 1

FT /tag= a

FT /mod_base= "OTHER"

FT /note= "5'-end phosphorylated"

XX MO200188164-A1.

XX 22-NOV-2001.

XX 28-FEB-2001; 2001MO-DE00780.

XX 19-MAY-2000; 2000DE-1024740.

XX (MPBC-) MPB COLOGNE GMBH.

XX Duetting K;

XX MPI; 2002-055703/07.

XX Controlled elimination of DNA, useful for expressing toxic proteins in
XX plants, comprises expressing recombinase-ligand binding domain fusion
XX from an inducible promoter

XX Example 1; Page 18; 31pp; German.

XX This invention describes a novel method for the controlled elimination of
XX a selected DNA sequence (I) from a host organism. The host is transformed
XX with the following: (i) a DNA sequence (Ia), flanked by 5' and 3'
XX recombination DNA sequences (RS); and (ii) a sequence (II) that encodes a
XX ligand-binding domain/recombinase fusion protein (Rec-LBD) that
XX recognizes RS, under control of an inducible promoter (IP).
XX Transformation is under conditions where IP is repressed (no Rec-LBD is
XX produced), after which IP is induced to cause expression of Rec-LBD and
XX a ligand is added to activate this fusion protein. The method is
XX applicable to plants to provide temporally regulated expression of
XX foreign proteins ('protein farming'), particularly for post-harvest
XX recovery of the proteins. The proteins are particularly toxic or
XX deleterious to the plant, e.g. antimicrobial or antibiotic peptides,
XX RNAases, diptheria toxin, cytosine deaminase, antibodies etc. The method
XX can also be used to remove marker genes from transgenic plants and for
XX production of poly(hydroxyalkanoates). The method includes two levels of
XX repression (use of inducible promoter and ligand for activating the

CC recombination reaction), ensuring secure regulation of recombinase
CC activity as long as this is required (generally until plants are
CC harvested). By selection of appropriate promoters, tissue selectivity may
CC also be provided. This sequence represents a linker primer used in the
CC construction of plasmid pRT100/scFv(ox)E which contains an endoplasmic
CC reticulum localising scFv(ox) antibody fragment encoding a KDEL-ER
CC targeting sequence.

XX Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

CC Query Match 87.7%; Score 11.4; DB 24; Length 14;

CC Best Local Similarity 92.3%; Pred. No. 2.6e+03;

XX Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGCGCATG 13

DB 2 ATGCATGCGCATG 14

RESULT 12

AA169334/c

ID AA169334 standard; DNA; 14 BP.

AC AA169334;

DT 18-FEB-2002 (first entry)

XX Plasmid pRT100/scFv(ox)E ER localising scFv(ox) Ab linker primer #1.

XX Endoplasmic reticulum; scFv; antibody; protein farming; transgenic plant;
XX antimicrobial; antibiotic; RNase; diptheria toxin; cytosine deaminase;
XX polyhydroxyalkanoate production; primer; ss.

OS Synthetic.

XX Key Location/Qualifiers

FT modified_base 1

FT /tag= a

FT /mod_base= "OTHER"

FT /note= "5'-end phosphorylated"

XX MO200188164-A1.

XX 22-NOV-2001.

XX 28-FEB-2001; 2001MO-DE00780.

XX 19-MAY-2000; 2000DE-1024740.

XX (MPBC-) MPB COLOGNE GMBH.

XX Duetting K;

XX MPI; 2002-055703/07.

XX Controlled elimination of DNA, useful for expressing toxic proteins in
XX plants, comprises expressing recombinase-ligand binding domain fusion
XX from an inducible promoter

XX Example 1; Page 18; 31pp; German.

XX This invention describes a novel method for the controlled elimination of
XX a selected DNA sequence (I) from a host organism. The host is transformed
XX with the following: (i) a DNA sequence (Ia), flanked by 5' and 3'
XX recombination DNA sequences (RS); and (ii) a sequence (II) that encodes a
XX ligand-binding domain/recombinase fusion protein (Rec-LBD) that
XX recognizes RS, under control of an inducible promoter (IP).
XX Transformation is under conditions where IP is repressed (no Rec-LBD is
XX produced), after which IP is induced to cause expression of Rec-LBD and
XX a ligand is added to activate this fusion protein. The method is
XX applicable to plants to provide temporally regulated expression of
XX foreign proteins ('protein farming'), particularly for post-harvest
XX recovery of the proteins. The proteins are particularly toxic or

CC deleterious to the plant, e.g. antimicrobial or antibiotic peptides,
CC RNAases, diphtheria toxin, cytosine deaminase, antibodies etc. The method
CC may also be used to remove marker genes from transgenic plants and for
CC production of poly(hydroxyalkanoates). The method includes two levels of
CC repression (use of inducible promoter and ligand for activating the
CC recombinant reaction), ensuring secure regulation of recombinase
CC activity as long as this is required (generally until plants are
CC harvested). By selection of appropriate promoters, tissue selectivity may
CC also be provided. This sequence represents a linker primer used in the
CC construction of plasmid pR100/scrV(ox)E which contains an endoplasmic
CC reticulum localising scrV(ox) antibody fragment encoding a KDEL-ER
CC targeting sequence.

SQ Sequence 14 BP; 3 A; 4 C; 4 G; 3 T; 0 other;

Query Match 87.7%; Score 11.4; DB 24; Length 14;
Best Local Similarity 92.3%; Pred. No. 2.6e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCAGT 13
Db 13 ATGCATGGCAGT 1

RESULT 13
AAZ70542/c
ID AAZ70542 standard; DNA; 18 BP.

AAZ70542;

10-SEP-2001 (first entry)

Human biallelic marker upstream amplification primer SEQ ID NO:4898.

Human genome; biallelic marker; high density disequilibrium map;
KM genomic map; haplotype; polymorphic base; genotyping;
KM haplotyping; hybridisation; identification; characterisation;
KM amplification; single nucleotide polymorphism; SNP; PCR primer;
KM diagnosis; ss.

Homo sapiens.

MO9954500-A2.

28-OCT-1999.

21-APR-1999; 99WO-IB00822.

21-APR-1998; 98US-0082614.

23-NOV-1998; 98US-0109732.

(GEST) GENSET.

Cohen D, Blumenfeld M, Chumakov I;

WPI; 2000-013267/01.

Novel biallelic markers used to construct a high density disequilibrium

map of the human genome -

Claim 8; Page 1275; 2745P; English.

AAZ69578 represent human biallelic markers from the present
invention, which contain a polymorphic base at position 24 of their
nucleotide sequences. AAZ69579 to AAZ77440 represent amplification
primers for the biallelic markers. The biallelic markers of the
invention have a variety of uses: they can be used for high density
mapping of the human genome, and in complex association studies and
haplotyping studies which are useful in determining the genetic basis
for disease states. Compositions and methods of the invention can also
be useful for the identification of the targets for the development of
pharmaceutical agents and diagnostic methods, as well as the
characterisation of the differential efficacious responses to and side

CC effects from pharmaceutical agents acting on a disease as well as other
CC treatment.
CC N.B. The SEQ ID Nos 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297
CC and 3367, are not actually given a sequence in the Sequence Listing
CC from the present invention.

SQ Sequence 18 BP; 4 A; 5 C; 4 G; 5 T; 0 other;

Query Match 87.7%; Score 11.4; DB 21; Length 18;
Best Local Similarity 92.3%; Pred. No. 2.7e+03;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGCATGGCAGT 13
Db 13 ATGCATGGCAGT 1

RESULT 14
AAT39773
ID AAT39773 standard; DNA; 20 BP.

AAT39773;

30-APR-1997 (first entry)

Target sequence for p53 peptide binding.

Human; p53; cell proliferation; cell death; regulator; tumour; psoriasis;
KM negative regulatory region; DNA damaging agent; transplant rejection;
KM abnormal cell proliferation; atherosclerosis; cancer; autoimmune disease;
KM arterial restenosis; immune response; apoptosis; inducer; therapy;
KM proliferating lymphocytes; de.

Synthetic.

MO9625434-A1.

22-AUG-1996.

16-FEB-1996; 96WO-US01535.

16-FEB-1995; 95US-0392542.

(PARB) BAYER CORP.

(WIST-) WISTAR INST.

Halazometis T, Hartwig W;

WPI; 1996-393345/39.

New human p53-isomorphous peptide(s) and peptidomimetic cpds. - used
PT for activating p53 function, e.g. for treating tumours, cancers,
PT psoriasis, etc

Claim 21; Page 47; 55P; English.

This sequence represents a target sequence used in a DNA binding assay
to detect p53 mutants whose DNA binding ability is activated by a peptide
of the invention (see AAM05350-W05364). The peptides of the invention
consist of at least four sequential amino acids from a negative
regulatory region which maps to residues 361-383 of p53 (see AAM05344 for
wild type p53 sequence). The p53 protein functions to regulate cell
proliferation and cell death, and is mutated in more than half of all
human tumours. The peptide sequences preferably contain four amino acids
from a non-human p53 sequence, contain D-form amino acids, and can also
be cyclic peptides. The sequences retain the structural characteristics
of the original peptides, but the modifications render them less
susceptible to cleavage by proteases and exopeptidases. As the peptides
activate p53 DNA binding, they can be used to identify p53 mutants. The
peptides can also be used for treating a patient with a tumour expressing
a p53 mutant whose ability to bind DNA may be activated by one of the
peptides. They can also be used for treating conditions such as exposure
to DNA damaging agents, abnormal cell proliferation characteristic of

CC pporitis, atherosclerosis, cancer, arterial restenosis, autoimmune
 CC diseases and undesirable immune responses accompanying rejection of a
 CC transplant. The peptides can also induce apoptosis of specific cells,
 CC such as proliferating lymphocytes.

SO Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 other;

Query Match 87.7%; Score 11.4; DB 17; Length 20;

Best Local Similarity 92.3%; Pred. No. 2.7e+03;

Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGGCATGGCATG 13
 |||||
 Db 5 ATGTCATGGCATG 17

RESULT 15

AAT07059/c

ID AAT07059 standard; DNA; 20 BP.

XX AAT07059;

AC AAT07059;

XX 05-JUL-1996 (first entry)

DE Primer 17A-215F for n-(ABCD E) hepatitis virus.

XX Oligonucleotide 5' primer 17A-215F; polymerase chain reaction;

KW PCR; non-A, non-B, non-C, non-D, non-E hepatitis virus;

KW n-(ABCD E); immunogen; antibody; vaccine; phage library; ss.

XX Synthetic.

OS WO9532290-A2.

PN 30-NOV-1995.

XX 17-MAY-1995; 95WO-US05980.

XX 20-MAY-1994; 94US-0246986.

XX (GENE-) GENELABS TECHNOLOGIES INC.

PA (USSH) US DEPT HEALTH & HUMAN SERVICES.

XX Kim JP, Purcell RH;

XX WPI; 1996-020585/02.

DR New non-A, -B, -C, -D and -E (n-(ABCD E) hepatitis DNA libraries -

XX used to develop probe for the detection, diagnosis, prevention and

PT treatment of n-(ABCD E) hepatitis.

PI Example 10; Page 126; 165pp; English.

XX After immunoscreening of the JFA library (ATCC 75271) in phage

CC lambda gt11 for the isolation of clones encoding immunogenic

CC polypeptides associated with non-A, non-B, non-C, non-D, non-E

CC (n-(ABCD E) hepatitis virus infection, overlapping clones to clone

CC 17A (see AAT07059) were obtained. One such clone, WT54 (AAT07253),

CC contained a 210 bp overlap with 17A which extends 119 bp from the

CC 3' end of 17A. This 5' primer is used with 3' WT54-684R (AAT07058)

CC to determine that the 17A-WT54 linked sequence is present in JFA

CC DNA and is not an artifact. n-(ABCD E) hepatitis polypeptides can

CC be used for the production or detection of antibodies, and in

CC vaccines. The antibodies can be used for detection, diagnosis and

CC in passive immunotherapy. The DNA can also be used in detection

CC and diagnosis, and as hybridisation probes for identification of

CC further n-(ABCD E) hepatitis coding sequences. Culture systems

CC producing the n-(ABCD E) polypeptides can be used in screening

CC studies.

XX Sequence 20 BP; 5 A; 7 C; 4 G; 4 T; 0 other;

SO Query Match 87.7%; Score 11.4; DB 17; Length 20;

Best Local Similarity 92.3%; Pred. No. 2.7e+03;

Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 ATGGCATGGCATG 13
 |||||

Db 14 ATGGCATGGCTTG 2

Search completed: March 29, 2003, 23:57:01
 Job time : 3577 secs

GenCore version 5.1.4 ps 4578
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OM nucleic - nucleic search, using sw model

Run on: March 29, 2003, 22:48:37 : Search time 29060 Seconds
(without alignments)
7.245 Million cell updates/sec

Title: US-09-897-776A-18
Perfect score: 13
Sequence: 1 atgcagcagcatg 13

Scoring table: IDENTITY_NUC
Gapop 10.0, Gapext 1.0

Searched: 16154066 seqs, 8097743376 residues

Total number of hits satisfying chosen parameters: 102592

Minimum DB seq length: 13
Maximum DB seq length: 50

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

EST:*
1: em_estba:*
2: em_estbam:*
3: em_estin:*
4: em_estmu:*
5: em_estrov:*
6: em_estrpl:*
7: em_estro:*
8: em_hic:*
9: gb_est1:*
10: gb_est2:*
11: gb_hic:*
12: gb_est3:*
13: gb_est4:*
14: gb_est5:*
15: em_estbam:*
16: em_estom:*
17: gb_gss:*
18: em_gss_hum:*
19: em_gss_inv:*
20: em_gss_pln:*
21: em_gss_vrt:*
22: em_gss_fun:*
23: em_gss_mam:*
24: em_gss_mus:*
25: em_gss_other:*
26: em_gss_pro:*
27: em_gss_rod:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	ID	Description
1	11	84.6	28 17	AZ412849 1M0186K06
2	11	84.6	35 10	BE618566 601462356
3	10.4	80.0	27 17	AZ418611 1M0246H21
4	10.4	80.0	27 17	AZ418611 1M0246H21
5	10.4	80.0	30 17	AZ684194 2M0139L03
6	10.4	80.0	31 17	AZ764843 1M0561M21

7	10.4	80.0	46 17	AQ254727
8	10.4	80.0	49 9	AA954745
9	10	76.9	22 9	A1802216
10	10	76.9	23 17	A2588147
11	10	76.9	34 9	AA630482
12	10	76.9	44 17	B07611
13	10	76.9	46 9	AA444354
14	9.8	75.4	23 17	A2799538
15	9.8	75.4	28 17	A261511
16	9.8	75.4	32 17	A2657897
17	9.8	75.4	36 17	A2797263
18	9.8	75.4	36 17	TA343G09P
19	9.8	75.4	37 14	H40236
20	9.8	75.4	37 17	A2366190
21	9.8	75.4	38 17	A2850114
22	9.8	75.4	40 9	A1040658
23	9.8	75.4	43 9	AA663711
24	9.8	75.4	47 17	AL760555
25	9.8	75.4	48 13	B1050453
26	9.8	75.4	49 10	AY964401
27	9.8	75.4	50 9	AU103603
28	9.4	72.3	20 17	A2442667
29	9.4	72.3	27 17	A2776662
30	9.4	72.3	27 17	A2966603
31	9.4	72.3	29 17	A2603273
32	9.4	72.3	31 17	BH862004
33	9.4	72.3	40 13	B1770067
34	9.4	72.3	42 17	BH855809
35	9.4	72.3	44 17	A2615083
36	9.4	72.3	44 17	BH855815
37	9.4	72.3	46 9	AA411525
38	9.4	72.3	46 9	AA531890
39	9.4	72.3	49 9	AA927087
40	9.4	72.3	49 9	A1003826
41	9.4	72.3	49 9	AA122130
42	9.4	72.3	50 9	AU102369
43	9.4	72.3	50 9	AU102370
44	9.4	72.3	50 9	AU104846
45	9.4	72.3	50 9	AU105888

ALIGNMENTS

RESULT 1
AZ412849 28 bp DNA linear GSS 03-OCT-2000
LOCUS 1M0186K06R Mouse 10kb plasmid UGCM library Mus musculus genomic
DEFINITION clone UGCM10186K06 R. DNA sequence.
ACCESSION AZ412849
VERSION AZ412849.1 GI:10536862
KEYWORDS GSS.
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.

REFERENCE
AUTHORS Dunn,D., Aoyagi,A., Barber,M., Beecorn,T., Duval,B., Haml,C.,
Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Rellly,
M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
and Wright,D., Weisse,R.
Mouse whole genome scaffolding with paired end reads from 10kb
plasmid inserts
Unpublished (2000)
Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00

JOURNAL COMMENT

Plate: 0186 row: K column: 06
Seq primer: CACACAGGAAACAGCTTGAAC
Class: plasmid ends
High quality sequence stop: 28.
Location/Qualifiers

FEATURES

source

1. 28
/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="U06C1M018K06"
/clone_lib="Mouse 10kb plasmid U06C1M library"
/sex="Male"
/lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: pMD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptor DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pMD42 (g1|473214|gb|AF123072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptor mouse DNA was annealed to adaptor vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

BASE COUNT

8 a 6 c 7 g 7 t

ORIGIN

Query Match 84.6%; Score 11; DB 17; Length 28;
Best Local Similarity 100.0%; Pred. No. 4e+04;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGCATGGCA 11
|||||

DB 17 ATGCATGGCA 27

RESULT 2

BE618566

LOCUS

601462356T1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3865957.3',

DEFINITION

BE618566 35 bp mRNA linear EST 20-OCT-2000

BE618566 601462356T1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3865957.3',

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

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BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

BE618566 1 GI:3889504

FEATURES

source

1. 27
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:3865957"
/clone_lib="NIH MGC 67"
/clone_type="retroblactoma"
/lab_host="DH10B (phage-resistant)"
/note="Organ: eye; Vector: pCMV-SPOF6; Site 1: NotI; Site 2: SalI; Cloned unidirectionally. Primer: Oligo dT
Average insert size 1.75 kb. Library constructed by Life Technologies."

BASE COUNT

6 a 8 c 6 g 15 t

ORIGIN

Query Match 84.6%; Score 11; DB 10; Length 35;
Best Local Similarity 100.0%; Pred. No. 4.4e+04;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 TGGCATGGCAT 12
|||||

DB 9 TGGCATGGCAT 19

RESULT 3

A2448611/c

LOCUS

IM0246H21F Mouse 10kb plasmid U06C1M library Mus musculus genomic

DEFINITION

A2448611 clone U06C1M0246H21 F, DNA sequence.

A2448611

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

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A2448611.1 GI:10601577

A2448611.1 GI:10601577

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A2448611.1 GI:10601577

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A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

A2448611.1 GI:10601577

FEATURES

source

1. 27
/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="U06C1M0246H21"
/clone_lib="Mouse 10kb plasmid U06C1M library"
/sex="Male"
/lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: pMD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The

adapted DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pMD42 (g14732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adapted mouse DNA was annealed to adapted vector DNA, and transformed into chemically-competent *E. coli* XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

BASE COUNT 8 a 12 c 5 g 2 t

ORIGIN

Query Match 80.0%; Score 10.4; DB 17; Length 27;
Best Local Similarity 91.7%; Pred. No. 7.8e+04;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

2 TGGCATTGGCATTG 13
|||||
Db 15 TGGCATTGGCATTG 4

RESULT 4
LOCUS TA385H06Q/c 27 bp DNA linear GSS 13-DEC-2000
DEFINITION T. brucei sheared genomic DNA clone 385h06, reverse sequence,

ACCESSION AL498874
VERSION AL498874.1 GI:11874596

KEYWORDS GSS.
SOURCE Trypanosoma brucei.
ORGANISM Trypanosoma brucei.
Eukaryota; Euklenozoa; Kinetoplastida; Trypanosomatidae;

REFERENCE 1 (bases 1 to 27)
AUTHORS Hall, N., Bowman, S., Lennard, N.J., Doggett, J., Atkin, R.,
Chillingworth, C., Ormond, D., Harris, B., El-Sayed, N., Hou, L.,
Melville, S.E., Rajandream, M.A. and Barrell, B.G.

TITLE Direct Submissions
JOURNAL Submitted (10-DEC-2000) Trypanosoma brucei genome sequencing
project, Sanger Centre, The Wellcome Trust Genome Campus, Hinxton,
Cambridge CB10 1SA, E-mail: barrell@sanger.ac.uk and
nhl@sanger.ac.uk

COMMENT Constructed at the Institute for Genomic Research (TIGR),
Rockville, MD. Genomic DNA isolated from a cloned population of
Trypanosoma brucei (TREU927/4 GUTat 10.1) was mechanically sheared
to give a tight size distribution (4 kb). The v + i method used for the library construction is
described in detail in Smith, H. and Venter, J.C. (Making small
insert libraries for whole genome shotgun sequencing projects. In
Genome Sequencing: A Practical Approach, eds. M. Vaudin and B.
Barrell, Oxford University Press, 1999).
Email: nelsayed@tigr.org
Details of T. brucei sequencing at the Sanger Centre are available
at http://www.sanger.ac.uk/projects/T_brucei/.

FEATURES
SOURCE location/Qualifiers
1..27

/organism="Trypanosoma brucei"
/strain="TREU927"
/db_xref="taxon:5691"
/clone="385h06"

BASE COUNT 12 a 7 c 3 g 5 t

ORIGIN

Query Match 80.0%; Score 10.4; DB 17; Length 27;
Best Local Similarity 91.7%; Pred. No. 7.8e+04;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCATTGGCATTG 12
|||||
Db 15 ATGGCATTGGCATTG 4

RESULT 5
LOCUS AZ841194 30 bp DNA linear GSS 20-FEB-2001
DEFINITION 2M01391037 Mouse 10kb plasmid UUGCM library Mus musculus genomic
clone UUGC2M0139103 F. DNA sequence.

ACCESSION AZ841194
VERSION AZ841194.1 GI:13011102

KEYWORDS GSS.
SOURCE house mouse.
MUS musculus

ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murine; Mus.
1 (bases 1 to 30)

REFERENCE 1
AUTHORS Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C.,
Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly,
M., Rose, M., Rose, R., Stokes, R., Tinney, A., von Niederhausern, A.
and Wright, D., Weiss, R.

TITLE Mouse whole genome scaffolding with paired end reads from 10kb
plasmid inserts
JOURNAL Unpublished (2000)
CONTACT: Robert B. Weiss
UNIVERSITY OF UTAH
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLIC, UT
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177

EMAIL: dunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0139 row: L column: 03
Seq primer: CGGTGTAAACGACGCGCACT
Class: plasmid end
High quality sequence stop: 30.
location/Qualifiers
1..30

FEATURES
SOURCE

/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="UUGC2M0139103"
/clone_1db="Mouse 10kb plasmid UUGCM library"
/sex="Male"
/lab_host="B. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: pMD42uv. Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
Laboratory Mouse DNA Resource
(<http://www.jax.org/resources/documents/dnares/>). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polynucleotide kinase. Adaptor oligonucleotides were
ligated to the blunt ends in high molar excess. The
adapted DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pMD42 (g14732114|gb|AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adapted mouse DNA was annealed to
adapted vector DNA, and transformed into
chemically-competent *E. coli* XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."

BASE COUNT 6 a 12 c 10 t

ORIGIN

Query Match 80.0%; Score 10.4; DB 17; Length 30;
Best Local Similarity 91.7%; Pred. No. 8.2e+04;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2 TGGCATTGGCATTG 13
|||||
Db 11 TGGCATTGGCATTG 22

RESULT 6
A2764843 31 bp DNA linear GSS 16-FEB-2001
LOCUS 1M0561N21F Mouse 10kb plasmid UUGCIM library Mus musculus genomic
DEFINITION clone UUGCIM0561N21 F, DNA sequence.
ACCESSION A2764843
VERSION A2764843.1 GI:12880199
KEYWORDS GSS
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus;
1 (bases 1 to 31)
Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamli, C.,
Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly,
M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A.,
and Wright, D., Weiss, R., unpublished (2000)
Mouse whole genome scaffolding with paired end reads from 10kb
plasmid inserts
JOURNAL Unpublished (2000)
COMMENT Contact: Robert B. Weiss
University of Utah Genome Center
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT
84112 USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0561 row: N column: 21
Seq primer: CGTGTAAACGACGCGCAGCT
Class: plasmid ends
High quality sequence stop: 31.
Location/Qualifiers
1..31
/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="UUGCIM0561N21"
/clone_lib="Mouse 10kb plasmid UUGCIM library"
/sex="Male"
/lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: pMD22uv, Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnarep/). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polynucleotide kinase. Adaptor oligonucleotides were
ligated to the blunt ends in high molar excess. The
adapted DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pMD22 (G114732114|gb|AF19072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptor mouse DNA was annealed to
adapted vector DNA, and transformed into
chemically-competent E. coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."

BASE COUNT 12 a 5 c 5 g 9 t
ORIGIN

Query Match 80.0%; Score 10.4; DB 17; Length 31;
Best Local Similarity 91.7%; Pred. No. 8.3e+04;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

CY 2 TGGCATGCGATG 13
|||||
DB 10 TGGCATGCGATG 21

RESULT 7
A0254727 46 bp DNA linear GSS 23-AUG-2000
LOCUS EP(3)3520 Drosophila melanogaster EP line Drosophila melanogaster
DEFINITION genomic sequence recovered from Both 5' and 3' ends of P element,
DNA sequence.
ACCESSION A0254727
VERSION A0254727.1 GI:3738590
KEYWORDS GSS.
SOURCE fruit fly.
ORGANISM Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 46)
Liao, G.-C., Rehm, F.J. and Rubin, G.M.
Insertion site preferences of the P transposable element in
Drosophila melanogaster
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3347-3351 (2000)
20202638
Contact: Gerald Rubin
Berkeley Drosophila Genome Project
University of California, Berkeley
USA Building, Berkeley, CA 94720-3200, USA
Fax: 5106433947
Email: gerry@fruitfly.berkeley.edu
Sequence recovery method was inverse PCR.
Sequence orientation is forward strand relative to 5' end of P
element
The P element insertion position is base 17 in the 46 bases. This
insertion position refers to the first base of the 8 base target
recognition sequence.
Class: transposon-tagged.
Location/Qualifiers
1..46
/organism="Drosophila melanogaster"
/db_xref="taxon:7227"
/clone_lib="Drosophila melanogaster EP line"
/note="Inverse PCR was performed on Drosophila
melanogaster strains each of which contains a single EP
transposable element insertion. (The generation of these
insertion strains is described in Roth P, Szabo K, Bailey
A, Laverly T, Rehm J, Rubin GM, Weismann K, Milam M, Benes
V, Ansoorge W, Cohen SM. 1998. Systematic gain-of-function
genetics in Drosophila. Development 6:1049-1057.) The
resultant fragment for each strain was directly sequenced
to determine the genomic sequence at the site of
insertion. Details of the protocols used can be found at
http://fruitfly.berkeley.edu/P_disconnect/inverse_pcr.html."

BASE COUNT 10 a 13 c 13 g 10 t
ORIGIN

Query Match 80.0%; Score 10.4; DB 17; Length 46;
Best Local Similarity 91.7%; Pred. No. 9.8e+04;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

CY 2 TGGCATGCGATG 13
|||||
DB 10 TGGCATGCGCTG 21

RESULT 8
AA954745 49 bp mRNA linear EST 23-JUN-1998
LOCUS on56404.g1 Soaree_NFL_T_GBC_S1 Homo sapiens cDNA clone
DEFINITION IMAGE:1560654 3' similar to gb:M21248 GLUTOSE-6-PHOSPHATE
1-DEHYDROGENASE (HUMAN); mRNA sequence.
ACCESSION AA954745
VERSION AA954745.1 GI:3118440
KEYWORDS EST.
SOURCE human.

ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 49)
 AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
 TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 Tumor Gene Index
 JOURNAL Unpublished (1997)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgaps-remail.nih.gov
 This clone is available royalty-free through LML; contact the
 IMAG Consortium (info@image.llnl.gov) for further information.
 Insert Length: 1780 Std Error: 0.00
 Seq primer: -40m3 fwd. ET from Amersham.
 Location/Qualifiers
 1. 49
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone="IMAG:1560654"
 /clone_1lb="Soares_NFL_T_GBC_S1"
 /lab_host="DH10B"
 /note="Organ: pooled; Vector: pTY3D-Pac (Pharmacia) with
 a modified polylinker; Site 1: Not I; Site 2: Eco RI;
 Equal amounts of plasmid DNA from three normalized
 libraries (fetal lung NDHL19W, testis NHT, and B-cell
 NCI CGAP GCB1) were mixed, and 88 circles were made in
 vitro. Following HAP purification, this DNA was used as
 tracer in a subtractive hybridization reaction. The driver
 was PCR-amplified cDNAs from pools of 5,000 clones made
 from the same 3 libraries. The pools consisted of
 1 M.A.G.E. clones 297480-302087, 682632-687233,
 726408-728711, and 729096-731399. Subtraction by Bento
 Soares and M. Fatima Bonaldo."
 BASE COUNT 7 a 4 c 21 g 17 t
 ORIGIN
 Query Match 80.0%; Score 10.4; DB 9; Length 49;
 Best Local Similarity 91.7%; Pred. No. 1e+05;
 Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Oy 1 ATGGCATGGCAT 12
 Db 22 ATGGCAGGCGCAT 33

LOCUS AT802216 22 bp mRNA linear EST 13-DEC-1999
 DEFINITION t33607.x1 NCI CGAP panel Homo sapiens cDNA clone IMAGE:2143573.3,
 similar to SW:BL3 BOVIN P39872 606 RIBOSOMAL PROTEIN L3, contains
 PIR5_b2 PTR5 repetitive element; mRNA sequence.
 ACCESSION AT802216
 VERSION AT802216.1 GI:5367688
 KEYWORDS EST.
 SOURCE human.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
 REFERENCE 1 (bases 1 to 22)
 AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.
 TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 Tumor Gene Index
 JOURNAL Unpublished (1997)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgaps-remail.nih.gov
 Life Technologies catalog # 11548-013
 DNA Sequencing by: Washington University Genome Sequencing Center
 Clone distribution: NCI-CGAP clone distribution information can be
 found through the I.M.A.G.E. Consortium/LML at:
www-bio.llnl.gov/bdrip/image/image.html
 Insert Length: 1000 Std Error: 0.00
 Seq primer: -40UP from Gibco
 High quality sequence stop: 1.

FEATURES
 source Location/Qualifiers
 1..22
 /organism="Homo sapiens"
 /db_xref="taxon:9606"
 /clone="IMAG:2143573"
 /clone_1lb="NCI CGAP Panel"
 /tissue_type="adenocarcinoma"
 /lab_host="DH10B"
 /note="Organ: pancreas; Vector: pCMV-SPORT6; Site 1: SalI;
 Site 2: NotI; Cloned unidirectionally. Primer: Oligo dT.
 Average insert size 1.72 kb. Life Technologies catalog #:
 11548-013"
 BASE COUNT 5 a 9 c 6 g 2 t
 ORIGIN
 Query Match 76.9%; Score 10; DB 9; Length 22;
 Best Local Similarity 100.0%; Pred. No. 1e+05;
 Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Oy 3 GGCATGGCAT 12
 Db 20 GGCATGGCAT 11

RESULT 10
 LOCUS AZ588147 23 bp DNA linear GSS 13-DEC-2000
 DEFINITION IM099612F Mouse 10kb plasmid UUGCIM library Mus musculus genomic
 clone UUGCIM0396G12 F, DNA sequence.
 ACCESSION AZ588147
 VERSION AZ588147.1 GI:11710253
 KEYWORDS GSS.
 SOURCE house mouse.
 ORGANISM Mus musculus
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 REFERENCE 1 (bases 1 to 23)
 AUTHORS Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C.,
 Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly
 M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
 and Wright,D., Weiss,R.
 Mouse whole genome scaffolding with paired end reads from 10kb
 plasmid inserts
 Unpublished (2000)
 JOURNAL Contact: Robert B. Weiss
 COMMENT University of Utah Genome Center
 University of Utah
 Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLG, UT
 84112, USA
 Tel: 801 585 5606
 Fax: 801 585 7177
 Email: ddunn@genetics.utah.edu
 Insert Length: 10000 Std Error: 0.00
 Plate: 0396 row: G column: 12
 Seq primer: CATTGTAAACGACGCCACGT
 Class: plasmid ends
 High quality sequence stop: 23.
 Location/Qualifiers
 1..23
 /organism="Mus musculus"
 /strain="C57BL/6J"
 /db_xref="taxon:10090"
 /clone="UUGCIM0396G12"
 /clone_1lb="Mouse 10kb plasmid UUGCIM library"
 /sex="Male"
 /lab_host="B. Coli strain XL10-Gold, T1-resistant, F-"
 /note="Vector: pMD42mv. Purified genomic DNA from M.
 musculus C57BL/6J (male) was obtained from the Jackson
 Laboratory Mouse DNA Resource
 (<http://www.jax.org/resources/documents/dnares/>). The DNA
 was hydrodynamically sheared by repeated passage through a
 0.005 inch orifice at constant velocity. The sheared DNA
 was blunt end-repaired with T4 DNA polymerase and T4

polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptor DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pMD2 (91473214|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptor complementary to the insert adaptor and purified. The sheared, adaptor mouse DNA was annealed to adaptor vector DNA, and transformed into chemically-competent *E. coli* XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

BASE COUNT

8 a 7 c 4 g 4 t

76.9%; Score 10; DB 17; Length 23;

Query Match
Best Local Similarity 100.0%; Pred. No. 1.2e+05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 GCATGGCATG 13

Db 13 GCATGGCATG 22

LOCUS 11

AA630482 34 bp mRNA linear EST 06-MAR-1998

DEFINITION

ab93f09.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:855017 3' similar to SW:RL3_HUMAN P39023 60S RIBOSOMAL PROTEIN L3. ; mRNA sequence.

ACCESSION

AA630482

VERSION

AA630482.1 GI:2553093

KEYWORDS

EST.

SOURCE

human.

ORGANISM

Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.

REFERENCE

1 (bases 1 to 34)

AUTHORS

Hillier, L., Allen, M., Bowles, L., Dubuque, T., Geisel, G., Joet, S.,
Kritman, D., Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin,
J., Moore, B., Schellenberg, K., Stepec, M., Tan, F., Theising, B.,
White, Y., Wyllie, T., Waterston, R. and Wilson, R.

TITLE

WashU-NCI human EST Project

JOURNAL

Unpublished (1997)

COMMENT

Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810

Email: est@wustl.wustl.edu
This clone is available royalty-free through LINTL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Trace considered overall poor quality
Possible reversed clone; similarity on wrong strand
Insert Length: 725 Std Error: 0.00
Seq primer: -40ml3 fwd. ET from Amersham
High quality sequence stop: 1.

FEATURES

Location/Qualifiers

1..34

/organism="Homo sapiens"

/db_xref="taxon:9606"

/clone="IMAGE:855017"

/clone_1lb="Stratagene lung (#937210)"

/sex="male"

/dev_stage="72 years"

/lab_host="SOLR cells (kanamycin resistant)"

/note="Organ: lung; Vector: pBluescript SK-; Site 1: EcoRI
; Site 2: XhoI; Cloned unidirectionally. Primer: oligo
dT. normal lung. Average insert size: 1.0 kb; Uni-ZAP XR
Vector: -5' adaptor sequence: 5' GAAATTCGGCAGAG 3' -3'
adaptor sequence: 5' CTCGAGTTTCTTTTCTTTT 3'."

BASE COUNT

10 a 15 c 6 g 3 t

Query Match
Best Local Similarity 100.0%; Pred. No. 1.4e+05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 GGCATGGCAT 12

Db 20 GGCATGGCAT 11

RESULT 12

LOCUS

DEFINITION

B07611 44 bp DNA linear GSS 17-JAN-1998

ACCESSION

B07611.1 GI:2781450

VERSION

GSS.

KEYWORDS

human.

SOURCE

human.

ORGANISM

Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homidae; Homo.

REFERENCE

1 (bases 1 to 44)

AUTHORS

Church, D.M., Yang, J., Shiang, R., Maumuch and J.J.

TITLE

A High Resolution Physical and Transcription map for the Cri du
chat region of human chromosome 5p

JOURNAL

Unpublished (1997)

COMMENT

Contact: Rita Shiang
Shiang lab
University of California- Irvine
2400 Med. Sci. I, UCI-COM, Irvine, CA 92697-1700, USA
Tel: (714) 824-6792
Fax: (714) 824-3403
Email: rshiang@uci.edu
Insert Length: 44 Std Error: 0.00
Class: exon-trapped.

FEATURES

Location/Qualifiers

1..44

/organism="Homo sapiens"

/db_xref="taxon:9606"

/clone="CDC1044"

/clone_1lb="Cri du chat, exon trapped products"

/note="Exon trapped products from the CDC critical region
associated with mental retardation and facial
dysmorphism."

BASE COUNT

10 a 13 c 14 g 7 t

ORIGIN

Query Match

Best Local Similarity 100.0%; Pred. No. 1.5e+05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 GGCATGGCAT 12

Db 22 GGCATGGCAT 13

LOCUS

DEFINITION

AA444354 46 bp mRNA linear EST 03-JUN-1997

ACCESSION

AA444354.1 GI:2157019

VERSION

EST.

KEYWORDS

house mouse.

SOURCE

mus musculus

ORGANISM

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 46)

REFERENCE

Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T.,
Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M.,

TITLE
JOURNAL
COMMENT

Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B.,
Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and
Waterson, R.
The WashU-HMMI Mouse EST Project
Unpublished (1996)
Contact: Marra M/Mouse EST Project
WashU-HMMI Mouse EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: mouseest@wustl.edu
This clone is available royalty-free through LNL; contact the
IMAGE Consortium (info@image.lnl.gov) for further information.
MGI:484390
Putative full length read
Vector to vector length is 246
Possible reversed clone: similarity on wrong strand
Seq primer: -28m3 rev2 ET from Amersham
High quality sequence stop: 32.
Location/Qualifiers

FEATURES

source

1. .46
/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="IMAGE:808046"
/clone_1b="Soares mouse NBMH"
/sex="male"
/tissue_type="heart"
/dev_stage="4 weeks"
/lab_host="DH10B"
/note="Vector: pT73D-Pac (Pharmacia) with a modified
polylinker; Site 1: Not I; Site 2: Eco RI; 1st strand cDNA
was primed with a Not I - oligo(dT) primer [5',
TGTTCACCAATGTAAGTGGAGCGGCGGAGATTTTCTTTTCTTTTCTTTT
3']; double-stranded cDNA was ligated to Eco RI adaptors
[Pharmacia], digested with Not I and cloned into the Not
I and Eco RI sites of the modified pT73 vector. RNA
provided by Dr. Minoru Ko, Wayne State Univ. Library
constructed and normalized by Bento Soares and M.Fatima
Bonaldo." 8 a 16 c 13 g 9 t

BASE COUNT
ORIGIN

Query Match 76.9%; Score 10; DB 9; Length 46;
Best Local Similarity 100.0%; Pred. No. 1.6e+05;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 GGCATGGCAT 12
DB 23 GGCATGGCAT 32

RESULT 14
AZ799538/c 23 bp DNA linear GSS 16-FEB-2001
LOCUS 2M0057N05F Mouse 10kb plasmid UGCM1 library Mus musculus genomic
DEFINITION clone UGCM0057N05 F, DNA sequence.
ACCESSION AZ799538
VERSION AZ799538.1 GI:12950757
KEYWORDS GSS.
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

REFERENCE

AUTHORS Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C.,
Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly,
M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A.
and Wright, D., Weiss, R.
Mouse whole genome scaffolding with paired end reads from 10kb
plasmid inserts
JOURNAL Unpublished (2000)

COMMENT

Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert length: 10000 Std Error: 0.00
Plate: 0057 row: N column: 05
Seq primer: CGTTGTAACGACGCGCCAGT
Class: plasmid ends
High quality sequence stop: 23.
Location/Qualifiers

FEATURES

source

1. .23
/organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="UGCM0057N05"
/clone_1b="Mouse 10kb plasmid UGCM1 library"
/sex="male"
/lab_host="B. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: PMD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polynucleotide kinase. Adaptor oligonucleotides were
ligated to the blunt ends in high molar excess. The
adapted DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pMD42 (g1473214[9b]AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adapted mouse DNA was annealed to
adapted vector DNA, and transformed into
chemically-competent E. coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance." 6 a 5 c 4 g 8 t

BASE COUNT
ORIGIN

Query Match 75.4%; Score 9.8; DB 17; Length 23;
Best Local Similarity 84.6%; Pred. No. 1.5e+05;
Matches 11; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 ATGGCATGGCATG 13
DB 18 ATGGCATGGCATG 6

RESULT 15
AZ361511/c 28 bp DNA linear GSS 02-OCT-2000
LOCUS 1M0106B17F Mouse 10kb plasmid UGCM1 library Mus musculus genomic
DEFINITION clone UGCM0106B17 F, DNA sequence.
ACCESSION AZ361511
VERSION AZ361511.1 GI:10475211
KEYWORDS GSS.
SOURCE house mouse.
ORGANISM Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

REFERENCE

AUTHORS Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C.,
Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly,
M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A.
and Wright, D., Weiss, R.
Mouse whole genome scaffolding with paired end reads from 10kb
plasmid inserts
JOURNAL Unpublished (2000)

COMMENT

Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLG, UT
84112, USA
Tel: 801 585 5606
Fax: 801 585 7177
Email: dduan@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0106 row: B column: 17
Seq primer: CGTTGTAAACGACGCCAGT
Class: Plasmid ends
High quality sequence stop: 28.

FEATURES

source

1. 28
location/Qualifiers

/organism="Mus musculus"

/strain="C57BL/6J"

/db_xref="taxon:10090"

/clone="UUCG1M0106B17"

/clone_1lb="Mouse 10kb plasmid UUCG1M 1library"

/sex="Male"

/lab_host="E. Coli strain XL10-Gold, TI-resistant, P-"

/note="Vector: PWD42ny: Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource

(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptor DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of PWD42 (g1473214[SP]AF12972.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptor mouse DNA was annealed to adaptor vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

BASE COUNT 13 a 5 c 3 g 7 t
ORIGIN

Query Match

Best Local Similarity 84.6%; Score 9.8; DB 17; Length 28;
Matches 11; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 ATGCATCGCATG 13
|||||

P 15 ATGCATCGCATG 3
|||||

Search completed: March 30, 2003, 08:21:31
Job time : 29063 secs